

REMARKS

Applicants have amended independent Claims 1, 26, 35, 38 to more accurately define the invention. In the event that additional elements need to be inserted in order for these and the dependent claims to be allowable, Applicants will gladly cooperate with the Examiner to effect any changes needed.

The Examiner is respectfully requested to withdraw the rejection of Claims 1, 5-26, 30 - 36, 38- 40 and 42 - 44, 46 - 59 under 35 U.S.C. §112, first paragraph as not sufficiently described in the specification.

In the present invention, a server embeds—at the site of a proxy— an application inside a secure coprocessor which will then perform the functions of a proxy without requiring modification to the client or the server. Claim1 now states “...embedding a secure coprocessor for use as an agent of said client and/or server which assures that said proxy cannot tamper with the functioning of said agent, said agent being a software or hardware logic operating within the confines of the coprocessor...” In response to the query posed by the Examiner, the term “agent” found on page 7, line 5, was inartfully used in the context of the text at the time the application was filed. It was not the intent of Applicants that “agent” should have the same meaning as the term is used in the context of the elements comprising the invention. The word “agent” at page 7, line 5, has been modified herein to “entity” to more accurately explain and distinguish that the “entity”, i.e., which exists in the real world as an external outside hostile influence as detailed below, is different from the “agent”element found in the system which comprises the invention. The term “entity” eliminates confusion as the context of the sentence is such that an external hostile element whose interests are contrary to the client can neither subvert nor disrupt the execution of an application. As noted previously, this element (“entity”) does NOT refer to elements found in the system. It refers to any exterior hostile element. The support for the change of the word is found in the drawings and in the text of the specification.

The Examiner is respectfully requested to reconsider the rejection of claims 1, 26, 35 and 40 under 35 U.S.C. § 103 (a) as being unpatentable over Cashman, et al. (U.S. Patent 6,209,087).

Claim 1 defines the use of a secure coprocessor which is used to achieve end to end security guarantees in the protocol translation between client and server.

Cashman et al. describe a method which uses a coprocessor to implement elements of the protocol translation process between client and server. In Cashman's system, the proxy is trusted to do this protocol translation, and the coprocessor is used merely as performance enhancing means. Note that in Cashman, the proxy can tamper with what the coprocessor does. It is important to note that in Cashman, the proxy directly controls the coprocessor. Applicants emphasize that there is no end to end security guarantee being maintained by the protocol translation process of Cashman.

Applicants do use a coprocessor in their invention, but that is where the similarity ends. Applicants use the coprocessor in their invention to enforce a trust model between the client and the server. The secure coprocessor guarantees that no external entity can tamper with the functioning of the hardware logic or software programs. The use of the coprocessor in the present invention insures that end to end security is guaranteed.

It is essential to note with respect to the present invention, neither the proxy nor any external entity can tamper with the functionality being implemented by the software programs or hardware logic functioning within the confines of the coprocessor.

Applicants' objective is to use a secure coprocessor to perform protocol translation in a manner that preserves the end to end trust model between the client and server.

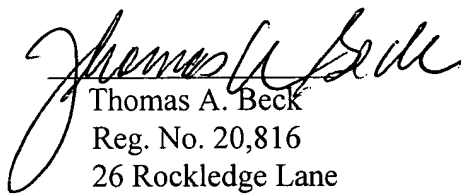
The Claims now cover a "secure coprocessor" which explicitly means tamper resistant/ tamper-proof and the fact that the coprocessor is translating protocols while still maintaining the trust model between the client and server.

The Examiner is respectfully request to grant a one month extension of time to and including January 25, 2004 within which to respond to the above-identified Office Action. A check in the amount of \$110.00 is attached hereto to cover the one month extension fee.

In view of the arguments and modifications to the claims, allowance of this case is warranted. Such favorable action is respectfully solicited.

January 23, 2004

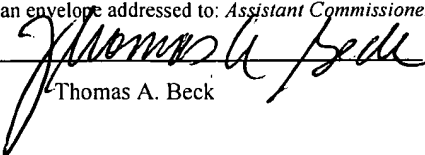
Respectfully submitted,


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I certify that this amendment is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: *Assistant Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450*

Signature

Name:


Thomas A. Beck

Date: January 23, 2004